

# **AudioControl PNW-275 Component Midrange Speakers User Guide**

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## **FEATURES**

- Edge-enhanced steel frame for added structural strength
- Black anodized voice coil former for superior heat dissipation
- · Linear surround for precision cone movement
- · Complex FEA designed high-efficiency motor
- Paper fiber matrix cone with mica coating for optimized sound reproduction
- Transparent thermal-polymer dust cap for superior fidelity
- · High-quality mounting hardware included
- · Umbrella not included

## Important Safety Instructions

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not submerge this apparatus in water
- 6. Clean only with a dry cloth.
- 7. WARNING: The speakers must be properly secured in the vehicle. Improper installation may lead to permanent injury or death. Installation of the speakers must be done with great care by qualified personnel, to prevent damage to fuel lines, power and other electrical wiring, hydraulic brake lines, and other systems, that might compromise vehicle safety. 8. Use speaker wire of sufficient size to ensure adequate current to the speaker. For PNW Series Speakers, this means 14-18 gauge speaker wire.
- 8. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power input terminals are damaged, objects have fallen into the apparatus, does not operate normally, or has been dropped.
- 9. Not tested for use in Bigfoot's Cave.

10. Exposure to high sound pressure levels may lead to permanent hearing loss. Take every precaution to protect your hearing

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Recycling notice: If the time comes and this apparatus has fulfilled its destiny, do not throw it out into the trash. It has to be carefully recycled for the good of mankind, by a facility specially equipped for the safe recycling of electronic apparated. Please contact your local or state recycling leaders for assistance in locating a suitable nearby recycling facility. Or, contact us and we might be able to repair it for you.

# Speaker Talk

Right on! You got yourself some shiny new Audio Control speakers. After you're done admiring the quality workmanship and attention to detail, you need to get these bad-boys installed. If you did not attend auto-shop in school or are having trouble plugging in power tools, your best bet is to seek out a qualified Audio Control dealer. They have the skills, experience, and specialized tools to get your vehicle sounding like a live concert and they usually smell alright too.

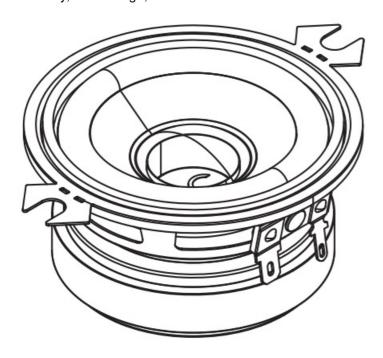
## Midrange

A mid-range speaker is an important component of any speaker system. It is designed to handle frequencies in the middle range of the audio spectrum, typically between 200 Hz and 2,000 Hz. These frequencies are important because they contain much of the detail and character of the sound.

# Here are some benefits of mid-range speakers:

- 1. Clarity: Mid-range speakers are designed to handle the most important frequencies in the human voice range, making it easy to understand dialogue and lyrics in music.
- 2. Accurate Sound: A good mid-range driver provides a flat frequency response, which means that it accurately reproduces the sound without any distortion or coloration.
- 3. Improved Soundstage: Mid-range drivers help to create a wider soundstage by reproducing the important frequencies that give sound depth and dimension. This creates a more immersive listening experience.
- 4. Smooth Transition: The mid-range driver plays a critical role in providing a smooth transition between the high and low frequencies, ensuring that there are no gaps In the sound reproduction.
- 5. Crossover: Mid-range speakers are typically used in a multi-way speaker system, which means that they are crossed over with other drivers (such as woofers and tweeters) to reproduce different frequency ranges. The crossover network ensures that each driver receives only the frequencies it is designed to handle, which improves overall sound quality.
- 6. Dispersion: Mid-range speakers are often designed to have a wide dispersion pattern, which means that they radiate sound evenly in all directions.
  - This can help to create a more natural soundstage and improve the listening experience for multiple listeners in the vehicle.

Overall, the mid-range speaker is an essential component in any speaker system as it helps to improve clarity, accuracy, soundstage, and transitions.



# **Specifications**

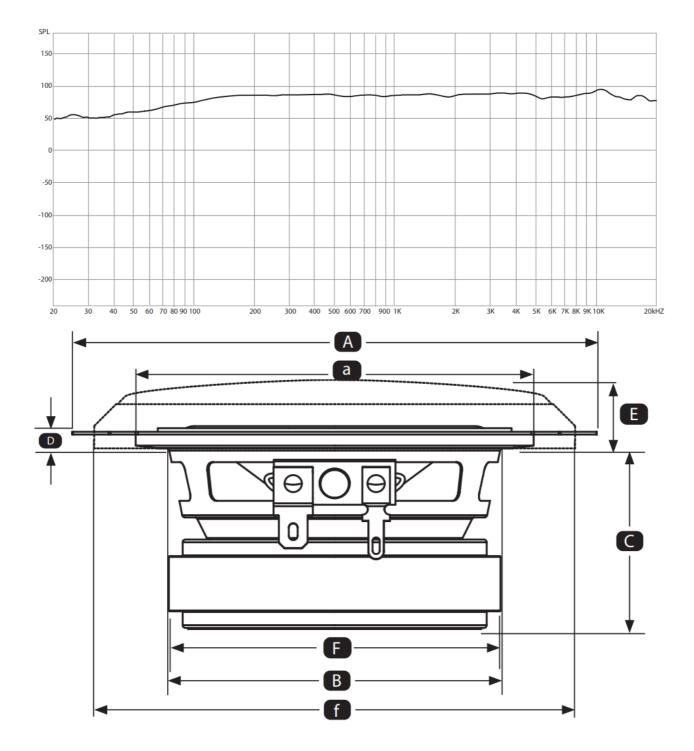
Crossover Type	Butterworth
DC Resistance (Re)	2.45 ohms
Filter Type	HP
System Frequency Response	100-20K Hz
XO Frequency	250 Hz
BP Frequency Range	200-4K Hz
Slope (Octave)	6 dB
Midrange Voice Coil Diameter	20 mm

# **Dimensions**

Overall Diameter(w/Metal bracket) (A)	3.74 in/ 95 mm
Overall Diameter(w/o Metal bracket)(a) 2.83 in / 72 mm	
Cut Out Diameter (B)	2.63 in/ 67 mm
Mounting Depth (C)	1.37 in/ 35 mm
Height (w/o Grille) (D)	0.05 in / 1.5 mm
Height (w/ Grille) (E)	0.48 in / 12.4 mm
Motor Diameter (w/ Cover) (F)	2.36 in / 60 mm
Grille Overall Diameter (f)	3.42 in / 87 mm

# **Continuous Power Handling (watts RMS)**

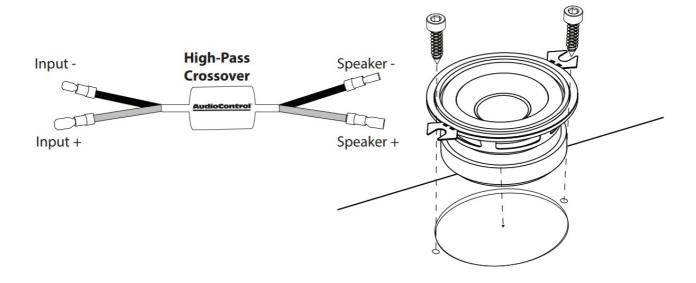
MIN	IDEAL	MAX	
15	25	50	



# **Factory Location Installation**

Wow! Look how far we have come, you made it to page 5! For those brave enough to tackle the installation on their own, proceed to the next steps. For those feeling out of their comfort zone, don't be threatened, help is available. Our suggestion is that you seek out a qualified Audio Control dealer. They have the skill set and experience to get your new PNW-275 installed properly.

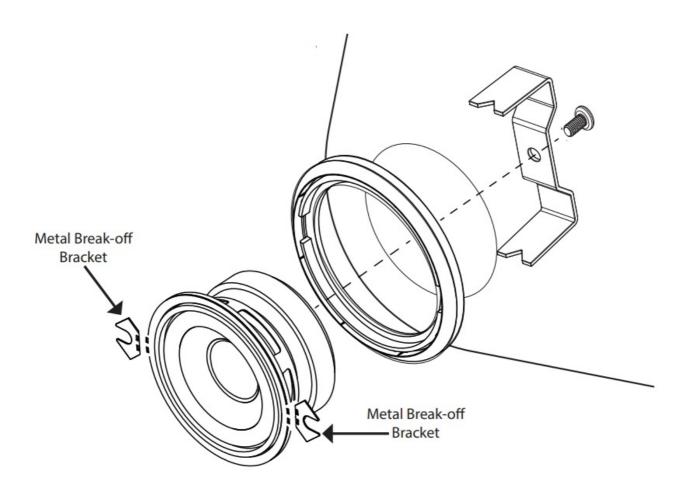
First, remove the factory grille or panel to gain access to the factory speaker. Next, remove the factory speaker and disconnect the necessary wiring. Before installing the speaker itself, decide whether your system will be wired as passive or active. With a Passive system, the included High-Pass Crossover will be required. With an Active system, we recommend not using the included crossover, but using the crossover in your digital signal processor instead. When setting up your DSP, set your crossover so that the PNW-275 will play frequencies between 350-4000 Hz. After the speaker has been wired, mount the speaker where you removed the factory speaker using the factory speaker hardware.



- Large speaker terminal = positive (+).
- Small speaker terminal = negative (-).

# **Custom Location Installation**

Remove the 2 metal break-off brackets from the speaker. Remove the speaker grille from the plastic bezel. Using the cut-out template mark the center of the hole. Use a 2 5/8 in (67mm) hole saw to make your mounting hole. Once your mounting hole has been cut, place the speaker into the plastic bezel. Place the assembly into the cutout hole. Position the U-Bracket on the back side of the panel and the speaker. With the supplied screw, mount the U-Bracket between the surface and the speaker.



In just the same way as being covered in honey and thrown into a dark pit full of hungry woodchucks, people are scared of warranties. Lots of fine print.

Months of waiting around. Well, fear no more. This warranty is designed to make you rave about Audio Control. It's a warranty that looks out for you and your client, plus helps you resist the temptation to have your friend Sparky, who's "good with electronics," try to repair your Audio Control product. So go ahead, read this warranty, then register the information at www.audiocontrol. com/product-registration and include your comments. Our warranty has conditional conditions! "Conditional" doesn't mean anything ominous. The Federal Trade Commission tells all manufacturers to use the term to indicate that certain conditions have to be met before they'll honor the warranty. If you meet all of these conditions, Audio Control will, at its discretion, repair or replace any Audio Control speaker products that exhibit defects in materials and/or workmanship for one (1) year from the date you bought it. We will repair or replace it, at our option, during that time.

#### Here are the conditional conditions:

- You must fully register your purchase within 15 days of the purchase date by going to the Audio Control product registration page at: <u>www.audiocontrol.com/product-registration</u>
   Failure to register your product will negate the warranty.
- 2. You need to hold on to your sales receipt! All warranty service requires original sales receipt documentation. The warranty only applies to the original purchaser from an authorized Audio Control dealer. Note: Products purchased from unauthorized dealers are not covered under warranty
- 3. The Audio Control speaker products must have originally been purchased from an authorized Audio Control dealer. If an authorized Audio Control dealer installs your Audio Control product, the warranty is extended to two (2) years.
- 4. Our warranty covers Audio Control products that have been installed according to the instructions in this manual.
- 5. You cannot let anyone who isn't: (A) the Audio Control factory; or(B) someone authorized in writing by Audio Control, service your Audio Control product. If anyone other than(A), or (B) messes with your Audio Control product, the warranty is void.
- 6. The warranty is void if the serial number is altered, defaced or removed, or if your product has been used improperly. Now that may sound like a big loophole, but here is what we mean by this: Unwarranted abuse is:

  (A) physical damage (don't use your product to pound in fence posts);
  - (B) improper connections (120 volts into the speaker terminals can fry the poor thing). This is the best product we know how to build, but for example, if you mount it to the front bumper of your car, drop it over Niagara Falls, or use it for anchoring your boat, something will go wrong.

Assuming you conform to 1 through 6, and it really isn't all that hard to do, we get the option of fixing your product, or replacing it with a new one, at our discretion.

In the event that your product is out of warranty or not covered under our warranty, you may request to have any damage repaired at our normal "Out of Warranty" repair cost.

# Legalese

The warranty above is the only warranty issued by Audio Control. This warranty gives you specific legal rights, and you may also have rights that vary from state to state.

Promises of how well your Audio Control product will work are not implied by this warranty. Other than what we've said we'll do in this warranty, we have no obligation, express or implied. We make no warranty of merchantability or fitness for any particular purpose. Also, neither we nor anyone else who has been involved in the development or manufacture of the unit will have any liability for any incidental, consequential, special, or punitive damages,

including but not limited to any lost profits or damage to other parts of your system by hooking up to the unit (whether the claim is one for breach of warranty, negligence of other tort, or any other kind of claim). Some states do not allow limitations of consequential damages.

For more information about this fine product, and for additional details of the limited warranty and repair services, please visit <a href="www.audiocontrol.com">www.audiocontrol.com</a>
For technical questions, please visit <a href="www.audiocontrol.com/knowledge-base/">www.audiocontrol.com/knowledge-base/</a>

# **Customer Support**

AudioControl, Inc. 22410 70th Avenue West Mountlake Terrace, WA 98043 USA Phone: 425-775-8461

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As technology advances, AudioControl reserves the right to continuously change our specifications, like our Pacific Northwest weather, although we are working on changing that as well.



#### **Documents / Resources**



<u>AudioControl PNW-275 Component Midrange Speakers</u> [pdf] User Guide PNW-275, PNW-275 Component Midrange Speakers, Component Midrange Speakers, Midrange Speakers, Speakers

## References

- Mome AudioControl
- Same Archive AudioControl
- Product Registration AudioControl

Manuals+,